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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,088	01/20/2004	Masayoshi Shouno	51843/DBP/A400	4597

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CHRISTIE, PARKER & HALE, LLP
PO BOX 7068
PASADENA, CA 91109-7068

EXAMINER

SOTOMAYOR, JOHN B

ART UNIT PAPER NUMBER

3662

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/762,088

Applicant(s)

SHOUNO ET AL.

Examiner

John B. Sotomayor

Art Unit

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20JAN04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings filed February 25, 2004 are acceptable.

Information Disclosure Statement

2. The information disclosure statement filed January 20, 2004 has been entered and considered. An initialed copy of the PTO-1449 by the Examiner is attached.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 5, and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are considered to be single means claims are thus indefinite as to what exactly is being claimed by the Applicants.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Shirai ('308).

The claims, as best understood, are considered to be met by Shirai ('308) who discloses a radar system including, inter alia, means for varying the antenna scan in either upward or downward directions by using a phase shifter. Shirai ('308) shows the scanning pattern in Figure 3. Shirai ('308) discloses an obstacle recognition system for automotive vehicles including a transceiver 31 provided with a scanner which scans the radar beam in the horizontal and vertical directions. Figure 3 is representative of the scan pattern produced by the radar system.

7. Claims 1-6 are rejected under 35 U.S.C. 102(a) as being anticipated by Asanuma et al ('082) or Ono ('523) or Nakanishi et al ('282) or Japanese Patent JP2000009841 to Okuwa et al.

The claims, as best understood, are considered to be met by Asanuma et al ('082) who discloses a radar system including, inter alia, means for varying the antenna

scan in either upward or downward directions by using a phase shifter. Asanuma et al ('082) shows the scanning pattern in Figures 2A2 or 2A3. Asanuma et al ('082) disclose an FMCW radar system (14) including means capable of varying upward/downward directions of the radiated beam pattern (11) in order to detect an overhead object (22).

The claims, as best understood, are considered to be met by Ono ('523) who discloses a radar system including, inter alia, means for varying the antenna scan in either upward or downward directions by using a phase shifter. Ono ('523) discloses a scanning angle control section 11 illustrated by Figure 2 and disclosed at column 3, lines 18-44. Ono ('523) disclose a FMCW radar system including radar antenna 1, scanning mechanism 2, and signal processing unit 3 interactively connected to detect overhead objects relative to a vehicle.

The claims, as best understood, are considered to be met by Nakanishi et al ('282) who discloses a radar system including, inter alia, means for varying the antenna scan in either upward or downward directions by using a phase shifter. Nakanishi et al ('282) disclose a scanning element arranged to change the beam azimuth of the transmission signal over a predetermined scanning range (see claims 18-23).

The claims, as best understood, are considered to be met by Japanese Patent JP2000009841 to Okuwa et al who disclose a antenna 11 scanning in two horizontal and vertical directions. Phase shifter 12 and beam controller 13 adjusts phases to direct beams in azimuth from control signals from DSP circuit 24.

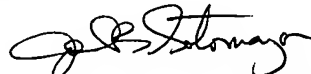
Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art show various radar systems.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Sotomayor whose telephone number is 571-272-6978. The examiner can normally be reached on Monday to Friday from 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom H. Tarcza, can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John B. Sotomayor
Primary Examiner
Art Unit 3662